eCMAR SECTION INSTRUCTIONS:
Sanitary Sewer Collection Systems

Please see the DEFINITIONS of terms at the end of this section. If you have any questions about these definitions, do not understand a question, or need further clarification, please call your Department basin engineer for assistance.

1: Do you have a Capacity, Management, Operation and Maintenance (CMOM) requirement in your WPDES permit?

Fill in the boxes beneath the question either yes or no. Most communities in the state do not have this requirement in their WPDES permit at this time and will thus answer this question "no".

2: Did you have a documented (written records/files, videotapes, etc.) sanitary sewer collection system operation and maintenance or CMOM program last calendar year?

Fill in the blank either yes or no. See the definition for " documented" below.

3: Does your Operation and Maintenance (O&M) or CMOM program contain the following bold elements (check all those that apply):

Check the boxes beneath the question that apply to your O&M or CMOM program.

4: Did your sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

Fill in the blanks for every question that apply to maintenance activities done in the report year indicating the percent of your system that was cleaned, roots removed,flow monitored, etc. ***If you did not do a maintenance activity, fill in a zero (0) in the box.***

Cleaning: The cleaning rate (% of system /year) represents the total miles of sewer pipe cleaned last year compared to the total miles in the community's sewer system.

Root Removal: The root removal rate (% of system /year) represents the total miles of sewer pipe where roots were removed last year compared to the total miles in the community's sewer system.

Flow Monitoring: The flow monitoring rate (% of system /year) represents the total miles of sewer pipe where sewer flows were measured last year, typically using temporary, portable flow measuring equipment (for determining infiltration and inflow amounts) compared to the total miles in the community's sewer system. This generally does not include lift station flow meters unless the lift station flow meter is used for determining the amount of I/I in a distinct unit of sewer pipe.

Smoke Testing: The smoke testing rate (% of system /year) represents the total miles of sewers that were smoke tested last year compared to the total miles in the community's sewer system.

Sewer Line Televising: The televising rate (% of system /year) represents the reported total miles of sewer pipe televised last year compared to the total miles in the community's sewer system.

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Manhole Inspections: The manhole inspection rate (% of system /year) represents the total number of manholes inspected last year compared to the total number of manholes in the community's sewer system. Inspection is defined below.

Lift Station O&M: The # per L.S/year is the number of maintenance events per lift station or grinder pump station per year. Maintenance events include inspections as well as servicing. Each time someone visits a lift station or grinder pump for either servicing or inspection would count as 1. So for a given year the # per L.S./year would equate to the number of L.S/grinder pump inspections or servicing events conducted in the community for the last year divided by the number of lift stations or grinder pumps within the community for that year. An inspection is more than a routine, cursory stop in at a lift station or grinder pump. Inspection definition is given below.

Manhole Rehabilitation: The manhole rehabilitation rate (% of system /year) represents the total number of manholes rehabilitated last compared to the total number of manholes in the community's sewer system. Rehabilitation means the upgrading and improving of the manhole structure through either minor or major repairs.

Mainline Rehabilitation: The mainline rehabilitation rate (% of system /year) represents the total miles of main sewer lines rehabilitated last compared to the total miles of main sewer lines in the community's sewer system. Main sewer lines are those lines that carry or are intended to carry much of the flow through a given area.

Private Sewer Inspections: The private sewer inspection rate (% of system /year) represents the total number of private services inspected last year compared to the total number of private services in the community's sewer system. Inspection is defined below. These can include but are not limited to lateral televising and a determination of sump pumps, foundation drains, roof drains or other improper connections to the sanitary sewer.

Private Sewer I/I Removal: The private sewer I/I removal rate (% of private services) represents the total number of private services that were repaired or I/I problems corrected last year compared to the total number of private services in the community's sewer system. This can include lateral repairs, new laterals, sump pump removal and the removal of improper drains from the sewer system as well as other actions taken to reduce or remove private service I/I.

5: Provide the following collection system and flow information for the past year.

Fill in the blanks below the question using actual data from your collection system and your location.Once you have filled in the information, click on the "CALCULATE" button and the performance indicator values will be automatically computed.

6: Was infiltration/inflow (I/I) significant in your community last year?

Fill in either box below the question. If you answered yes, please provide an explanation. "Significant" is relative and is in your opinion.

7: Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations or treatment plant at any time in the past year?

Fill in either box below the question. If you answered yes, please explain how I/I negatively affected performance of your system.

8: Explain any infiltration/inflow (I/I) changes this year from previous years. Is it changing?

Describe any I/I changes in your collection system. If no changes were found during the report year please indicate no change and how you came to that conclusion.

9: What is being done to address infiltration/inflow in your collection system?

Describe in the box below the question all actions taken in the report year to identify, quantify, or reduce infiltration/inflow into your collection system.

Definitions

(alphabetically arranged)

Annual Average Precipitation:

The historical annual average amount of precipitation for your location can be found using the annual precipitation totals (1971-2000) nomograph at http://www.aos.wisc.edu/%7Esco/state/WI-RANN2.gif OR by locating the nearest weather station site near you through the Wisconsin State Climatology Office website http://www.aos.wisc.edu/%7Esco/stations/menu.html. Annual average precipitation in Wisconsin is generally between 28-32 inches depending upon location.

Average Daily Flow:

The average daily flow, expressed as an average daily flow rate in units of millions gallons per day (MGD), can be calculated by dividing the total incoming flow by 365 days in the year. As an example, if your total annual amount of influent wastewater was ten million gallons, then the average daily flow is 10,000,000 gallons divided by 365 = 27,400 gallons per day (.0274 MGD). Enter the average daily flow in units of MGD on your eCMAR.

Basement Backup:

Basement Backup (occurrence) means an accumulation of sewage in the basement of any public or private building caused by blockage or by excess water entering in the publicly owned sewage collection system. An accumulation of sewage in a basement caused by blockage or failure of the building lateral shall not be considered a basement backup. Sewer system blockage means the structural collapse of a sewer or an accumulation of material in a sewer such that the sewage flow is impeded or stopped from flowing downstream.

{An occurrence may be more than one day if the circumstance(s) causing the basement backup are the caused by precipitation events that are a duration more than 24-hours. If there is a stop and restart of the basement backups within the 24-hours, but it's caused by the same circumstances, report it as one basement backup. If the basement backups are separated by more than 24-hours, they should be counted as separate basement backups.}

Capacity Management Operation and Maintenance (CMOM):

In January 2001 United States Environmental Protection Agency (U.S. EPA) attempted to publish in the Federal Register changes to Parts 122 and 123 Rules addressing sanitary sewer collection systems. These rules were intended to address Permit Requirements for Municipal Sanitary Sewer Collection Systems, Municipalities with collection systems but no treatment plant and Sanitary Sewer Overflows. As part of the proposed Rule governing discharge permits EPA attempted to incorporate a concept called Capacity, Management, Operation and Maintenance (CMOM). U.S. EPA proposed the CMOM program to: (1) ensure that communities have adequate wastewater collection capacity, (2) improve the operation of municipal sanitary sewer collection systems, (3) reduce the frequency and occurrence of sewer overflows, and (4) provide more effective public notification when overflows do occur. For more information on the Federal Rule please see this web site: (www.cmom.net). This rule is still in draft form. The Department is in the process of incorporating the CMOM program into rules that are being developed with the assistance of a Technical Advisory Committee.

Complaints:

A customer complaint related to the performance of the municipal collection system, including issues such as backups, overflows, and loose manhole covers. Odor complaints are not to be included unless directly related to a problem with the municipal sanitary sewer.

Documented:

Written paper, video, photographs or computer records in organized assemblages or in assorted files/locations that tangibly shows evidence or proof of specific work accomplishments and operation & maintenance activities. This may include but is not limited to paper files, notebooks, binders, computer records, videos, or photos.

Infiltration:

Infiltration means water other than wastewater that enters the sewage system (including sewer service connections (laterals) from the ground through such sources as defective pipes, pipe joints, connections, or manholes. Infiltration does not include and is distinguished from inflow.

Inflow:

Inflow means water other than wastewater that enters a sewerage system (including sewer service connections [laterals) from sources such as roof leaders, cellar drains, yard drains, area drains foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from infiltration

Inspection:

The careful, critical and formal evaluation and review of wastewater operations, equipment and management activities.

Lift Station Failures:

A condition that results in station overflows or an unacceptable surcharge of the collection system.

Peak Monthly Flow:

The largest volume of influent flow that occurred during a given month in the past year expressed as a flow rate with units of millions gallons per day (MGD). Find the largest monthly average flow from your Discharge Monitoring Reports (DMRs) and enter this value onto your eCMAR.

Peak Hourly Flow:

The largest volume of influent flow that occurred in the past year during a one-hour period, expressed as a flow rate with units of million gallons per day (MGD). You may need to reference your flow chart or computerized records for this information. For example, during a very heavy rain event, your flow chart recorder from 10:00-11:00 am shows a flow rate of 100 gallons per minute (gpm), then the corresponding peak hourly flow is expressed as 100 gpm x 60 minutes per hour x 24 hrs/day divided by 1,000,000 = .144 MGD. Chose the highest peak hourly flow on record from last year, calculate it as a daily flow accordingly and enter this value onto your eCMAR.

Sewer Pipe Failures:

A pipe which has lost its structural integrity as evidenced by total or partial collapse (loss of 50% of pipe area or 25% of pipe wall around any circumference).

Sewer System Overflow (SSO):

Sanitary sewer overflow (occurrence) means a discharge, spill, release or diversion of wastewater to a water of the state or to the ground surface from a sanitary sewage collection system prior to the point the collection system enters the wastewater treatment works. Sanitary sewer overflows include discharges that occur on private property, except it does not include basement backups.

{An occurrence may be more than one day if the circumstance(s) causing the overflow results in a discharge duration more than 24-hours. If there is a stop and restart of the overflow within the 24-hours, but it's caused by the same circumstances, report it as one overflow. If the overflows are separated by more than 24-hours, they should be counted as separate overflows.}

Total Actual Amount of Precipitation Last Year:

Total precipitation is the entire amount of precipitation (including snow equated to a water equivalent) that has fallen for the calendar year {January 1 through December 31}. Precipitation data you have collected or from other sources such as the National Weather Service, local airport or other approved source of precipitation information within close proximity of the permittee's location for the calendar year (January 1 – December 31) is acceptable. If a direct local source for annual precipitation data is not available, the following weather station data websites can be used for determining the total annual precipitation near you: http://hurricane.ncdc.noaa.gov/ancsum/ACS (requires a nominal fee of $2 per weather station) OR **http://www.wunderground.com/history/airport/KGRB/2003/7/12/DailyHistory.html** . To navigate this site, follow these steps :

(1) Type in the City, WI for your community at the very top of the webpage
(2) Scroll down to Personal Weather Stations (under the radar map) and click on this link
(3) A list of weather stations near your community will appear. Choose the one nearest you and click on "Historical Weather and Charts". This weather station's data will then be shown.
(4) Scroll down and to the right on this weather station page and "Select Data Span"….choose "Custom". Customize the dates for the eCMAR year, January 1, YEAR to December 31, YEAR and click GO. The weather data for that year will then be shown.
(5) Check to ensure that 12 months of data exists for this station, and if so, then find the total precipitation amount for the year under the Date Range Statistics. (If a nearby weather station does not have 12 months of precipitation data, then choose another weather station nearby that does).
(6) Enter this total precipitation amount on your eCMAR (Total Actual Amount of Precipitation Last Year)